

Friday, August 25, 2000

Comments by the Institute for Agriculture and Trade Policy on EPA's Hypoxia Draft Plan of Action

Overall Responses:

We congratulate the EPA for its willingness to set specific goals for nutrient reduction. Specific goals, coupled with an adaptive management process, are crucial to a successful campaign to reduce the hypoxic zone. However, the actions recommended to achieve this goal appear to lack the magnitude to properly address the problem.

For example, EPA has recommended as a short term action that by Fall 2002, "States and Tribes increase assistance to agricultural producers, other landowners, and businesses for the voluntary implementation of best management practices, which are effective in addressing loss of nitrogen to waterbodies." We applaud the recognition that change is most effective through voluntary incentives and not regulation. Yet most all watershed initiatives have failed to improve water quality because land use issues are not addressed. Corn and soybeans dominate the Upper Mississippi River Basin. The implementation of best management practices may temporarily reduce nutrient loads, but increasing yields—and increasing fertilization to produce those yields—results in a continual decline in water quality. Profitable alternatives to corn and soybeans are needed so that farmers and landowners can reduce their reliance on this nutrient-heavy rotation.

We need to recognize that addressing hypoxia requires us to look beyond our current agricultural structure. Corn, soybeans, and confined animal feeding operations will leak nutrients regardless of how precise nutrient management is incorporated. Successful achievement of the desired goals will require an adaptive management approach that incorporates sound farm policy. Current farm policy has diminished the Upper Mississippi River Basin from numerous diverse, sustainable farms to a few monocultural industrial operations. The hypoxic zone is one of the many undesirable consequences of this agriculture.

No evidence exists that indicates that such dramatic reductions in nutrients can be achieved over an entire Basin through Best Management Practices. Unless federal agencies can begin to address the very difficult policy decisions that need to be made, we will likely spend billions of dollars on programs that provide little benefit and strong opposition.

We further commend the incorporation of an adaptive approach, however, this approach needs to be more directly reflected in the recommendations. Suggest a study of other experiences in Adaptive Management around North America to see how they have and have not worked and lessons learned. The National Research Council recently completed an assessment of the Adaptive Management of Glen Canyon Dam and the Colorado River Ecosystem.

A Strategic Target for nutrient reduction is absolutely necessary, however the report seems to endorse both a range (20–40%) and a specific target (30%). Rationale is not

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entirely clear and will be used to confuse matters once implementation begins. One set figure a target ought to be a must.

We also need more emphasis on incentive driven and performance-based approaches to meeting targets. Benchmarking, reporting, evaluation, mid-course corrections will all require considerable effort for this approach to work. Serious scientific inquiry is needed in support of this performance-based, incentive driven, voluntary approach.

The role of the citizen is missing completely from the report. Without the direct involvement of the citizenry and their leadership in this effort, the plan is doomed. If the people in the river communities and tributary watersheds don't feel that this is their plan and their chance to improve their rivers and streams and their quality of life, implementation will be haphazard. The action plan needs to incorporate active participation and funding for NGOs, watershed districts, and local government.

Funding for this overall effort is crucial to its success. Billions of dollars have gone into farm practices and industrial facilities that have done considerable harm to our water resources. These initiative needs to be worked though the Farm Bill, not the Water Resources Development Act. We must learn to treat the source and not the symptoms. The fundamental source of the Hypoxia problem resides on the land and in the sub-watersheds, not in the river corridor and its water regime.

No attention in this plan is given to the long-term benefits and value of education and learning but in the end education will be the most effective means of bringing about positive change on the Hypoxia issue. NO environmental issue resonates stronger in the American mind than water quality. Hypoxia is simply a symptom of poor farm policy and Basin nutrient management. Connections need to be drawn so that citizens recognize that addressing hypoxia will also improve local water quality and wildlife habitat. In twelve years the prevailing perspective of the river can be transformed through education. No other civic tradition has the capacity to effectuate such change.

The plan ignores the current Upper Mississippi River navigation study conducted by the Corps of Engineers. Expanding navigation infrastructure, barge traffic, and grain production will have adverse impacts on the Gulf. Clearly, the Corps and the EPA need to coordinate activities, and the impact that increased navigation will have on Gulf hypoxia evaluated.

Key Questions:

Which of the "Coastal Goals" should be in the final Action Plan? Others? Are their "Within Basin" and "Quality of Life Goals" that are appropriate?

Reduce discharges of nitrogen by 2010 to Gulf by 350-650,000 metric tons -- equivalent to a 20 to 40% reduction. **Response:** Is there any evidence to suggest that less than a 40% reduction in discharge will have the desired result on the hypoxic zone? If not, then lets take a precautionary approach to restoration and go with the higher number. Lets also be realistic in noting that not all sub-basins are equal contributors to the problems. Larger than 40 percent reduction may be needed in some instances while less than 40% will be required from basins with low N discharge..

Re-evaluate in 5 years to account for advances in information and feasibility.

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Response: This sounds like an "accountability escape clause". Mid-course corrections should be based on progress toward target, and assessment of alternative measures that will be needed to achieve results. If Congress can find \$4B per year to give the Corps of Engineers for public works projects, economic feasibility is not a real issue here.

Reduce 5-year running areal extent of Hypoxic Zone in Gulf to less than 5,000 square kilometers. **Response:** If best science suggested needed reduction is 30%, why the variability in percent of reduction in metric tons in 1.A?

Within Basin Goal: To restore and protect the waters and their aquatic ecosystems.

Response: What level of restoration and protection are we talking about? How will you know when you have reached the goal -- Drinkable, Fishable Swimmable? How do you plan on achieving this goal, over what timeframe?

This is where citizen-led watershed specific plans and actions will have to be developed. Money will need to be set aside to help farmers experiment with alternative ways of reducing Nitrogen (e.g., crop insurance program)

The effectiveness of BMPs need to be determined

Quality of Life: Improve community and economic conditions through management and cooperative, incentive based approach. **Response:** It has been proven over and over again, that the health and well being of the communities depends on viability of the resources as a source of renewal. So, how is this goal to be implemented? What is the strategy?

Where is Wetlands goal? The Wetland's goal is not well addressed in the Draft Plan of Action. But there is little doubt that loss of wetlands and river channelization have contributed to the problem. The CENR reports recommend 5-million acres of wetland be restored. Wetland restoration should be viewed as a percent reduction due to nitrification

Are the Implementation Actions listed and the dates associated with them appropriate?

#1. Establish Sub-basin committees. **Response:** The composition of these committees needs to be addressed. They need to be chaired and dominated by non-governmental organizations and citizens. They should be reimbursed for participation.

#2. Developing strategies for nutrient reduction in sub-basins with greatest contributions to problem. **Response:** To reach overall reduction goals, should not the sub-basins contributing the most nitrogen also be the sub-basins that have to attain highest level of cut-back in N. Otherwise, less damaging basins would be disadvantaged and not treated equitably.

#3. Point Source Discharges. **Response:** Special attention as point sources should be given to industrial agriculture production systems that feature consolidated nutrient management systems.

#4. Increased assistance restores, enhances, and creates natural buffers to landowners by states, and tribes with help from federal government agencies. **Response:** This ignores the magnitude of the problem that we face, and what level of effort required to achieve goals. This assumes that we have all the knowledge needed, that the states have the resources and those intergovernmental teams will not require close working

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relationships.

#5. States and tribes with federal assistance will increase assistance to improve voluntary implementation of Best Management Practices. **Response:** This statement again assumes that the states will have the resources to accomplish this activity. Second, it assumes that we know that the BMPs do work sufficiently well to alleviate the problem. The statement is silent on larger than farm scale efforts that might be required to solve sub-basin problems. It is also silent in the role of the citizen, there leadership, skills, values, and motivation to change.

#6. Modeling necessary to reduce uncertainties regarding the sources, effects, and geo-chemical processes for Hypoxia. **Response:** Modeling has a much larger role to play in helping stakeholders develop an integrated, shared understanding of the problems we face. Modeling in the Adaptive Management context, is tool for not just exploring uncertainties in the abstract, it is a way of developing alternative approaches to solving the problem in different sub-basin contexts. It is a way of engaging wide range of interests in developing and testing (micro-world and real world) new approaches to co-management (public nor private sector can not do it alone) at different scales. Modeling can reduce uncertainties, but it can also, points to opportunities for small but instructive experiments that can help unlock formerly intractable problems.

#7. Expansion of long-term monitoring of Hypoxia Zone. Monitoring must be effectively coupled with periodic assessment, management action and evaluation to be effective. **Response:** Far too frequently, monitoring is just done for its own sake. A citizen's advisory committee should oversee monitoring and act as watch dog to ensure that monitoring, research, assessment, and management activities are effectively linked and operative.

#8. Course grain and High resolution assessment and modeling. **Response:** This shows signs of being very useful, and coupled with the fact that feds, states and tribes seem to be on a equal footing suggests the opportunity for cross-government collaboration. But this assumption should be made explicit.

#9. COE to complete reconnaissance level assessment. **Response:** This summer, the Corps cancelled a scheduled drawdown of a pool because low rainfall may have impeded river navigation. The Corps has consistently demonstrated that environmental concerns take a backseat to corporate interests. The Corps must be removed from this process. It is far to insular, and tied to nation moneyed interests. Unlike other federal agencies dealing with water resource issues on the Mississippi River, the Corps refuses to take a subordinate role. The states and tribes, in cooperation with the USGS, should take the lead. The insertion of the Corps in this process will only guarantee, that the states and tribes will continue to function as isolated and disenfranchised spectators of the river's demise. Getting the Corps out of the way, is our only hope of building generative and enduring river community.

#10. 5 year (periodic assessment) of progress. **Response:** The periodic assessment is important, if it is tied directly to future of research, management and monitoring. Only a citizen-led watch dog committee can guarantee that the various components of

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an adaptive management strategy for the river be made to work together for the common good.